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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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J. David Schaffer

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

HUYNH, SON P

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/627,139

Applicant(s)

SCHAFFER ET AL.

Examiner

Son P. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 6, 2005 regarding claims 1-26, as amended have been fully considered but they are not persuasive.

Applicant argues Hosken does not teach or suggest generating two sets of predictions based on profile developed from a user's preferences, and does not teach combining these two sets (page 12, paragraphs 1-3).

In response, this argument is respectfully traversed. The claim recites "two set of profile data, each defining a user's preferences..." and "...generate at least two set of predictions based on one or a combination of the sets of profile data, and combine the predictions..." The claim does not recite the profile data is received from a sole user. Rather the claim recites that the two set of profile data each defining a user's preference. In this case, one set of profile is defined from a user preference. The other set of profile data is defined from plural user preferences including a single user preference or the same user preference. Therefore, the other set of profile is defined also by a user preference. Hosken discloses profile data is received from a user and used to generate a prediction (e.g., content result table is generated based on user

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implicit behaviors— col. 10, line 50-col. 11, line 19 or favorite items table is based on user explicit behaviors – col.10, lines 1-49; col. 14, lines 40-60).

Hosken further discloses another prediction (collaborative result table) is generated based on references of a cluster of user including the references of the user that used to generate the content result table or favorite items table (the vector is an array based representation of the favorites input table that contains the item the user rating for that item... the system would compare the two user profiles, identifying any items contained in the user profile vector that were not present in the current user profile... – See col. 15, line 10-col. 16, line 15). Hosken then discloses combining content result table and collaborative result table, and then with users favorite items table (col. 16, lines 24-39). Thus, Hosken's disclosure of implicit data, explicit data, rating data, etc. used as user's preferences reads on two sets profile data, each defining a user's preferences..." and generating content result table, user favorite items table based on a user preferences and collaborative result table based on references of a cluster of users, which includes reference of the user reads on "...generate at least two set of predictions based on one or a combination of the sets of profile data"; combining content result table and collaborative result table and/or user favorite items table reads on combine the predictions...

For the reason given above, rejections on claims 1-26 are analyzed as discussed below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 9-14, 17-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hosken (US 6,438,579).

Regarding claim 1, the claimed automated recommendation system is broadly met by Hosken's disclosure as follow:

“a processor connected to receive resource data defining available resources” is broadly met by system processes 42 to receive resource data from source information (figure 1b) and “at least two sets of profile data, each defining a user preferences with respect to the resources” is broadly met by implicit set and explicit set of profile data, each defining a user preference (either user reference from user or user preference from cluster of user profile with including the user) with respect to the resources- figures 2-3; col. 4, lines 44-55);

“each of the sets of data being derived from a different class of interaction of the user with a first portion of the resource data and usable to predict a given resource’s desirability based on each of the sets” is broadly met by implicit data is gathered by monitoring user action and explicit data is gathered by user directly input information, and the data is used to predict the resource/item desired by user (figures 2-3, col. 5, lines 42-67; col. 10, line 2-col. 11, line 25);

“the processor being adapted to: generating at least two sets of predictions based on one or a combination of the sets of profile data, and combine at least two sets of predictions be weight-averaging corresponding ones from each of the at least two sets of predictions” is broadly met by the system processes (42) being adapted to generate content result table and collaborative result table or user favorite items table, the system combines the two table together, removing duplicates (averaging the rating weights – col. 16, lines 23-38).

Regarding claim 2, Hosken further discloses averaging rating weights and produce a table of recommend items based on implicit profile data and explicit profile data (col. 6, lines 33-50; col. 8, line 38-col. 13, line 31; col. 16, lines 1-44). Thus, the processor is inherently adapted to generate weight sum of corresponding records from each of the sets of profile data to generate a single combine set of profile data, and generate at least one of the sets of predictions from the single combined set (generating a final result table from the combination of profile data.

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Regarding claims 3-4, Hosken further discloses the system processes (42) is connected to control of items and responsive to the items recommended in the table (figures 1b-2; col. 6, lines 6-67) broadly reads on the claimed feature of “the processor is connected to control delivery of resource corresponding to the resource data and responsively to the predictions.

Regarding claim 5, Hosken further discloses the at least two profile data sets include a feedback data set derived from ratings provided by the user with respect to a particular resource in the resource data (col. 10, line 1-49).

Regarding claim 6, Hosken further teaches the at least two profile data sets include an implicit data set derived from machined observation of a user’s resource use history, whereby the implicit data reflects the user’s selections of resource to use (col. 10, line 50-19).

Regarding claims 9-14, the limitations of method as claimed respectively correspond to the limitations of system as claimed in claims 1-6 and are analyzed as discussed in the rejection of claims 1- 6.

Regarding claim 17, Hosken further discloses the sets of profile data includes

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a set of explicitly profile data indicating express indications by a user of preferred classes of programming rather than indication by the user of particular resources that are preferred (col. 10, line 1-49);

a feedback data derived from ratings provided by the user with respect to a particular resource in the resource data (col. 10, lines 1-49);

an implicit data set derived from machine observation of a user's resource use history, whereby the implicit data reflects the user's selection (col. 10, line 50-col. 11, line 19).

Regarding claim 18, see the rejection of claims 1 and 17.

Regarding claim 19-20, Hosken further the weighted relations data provided by the expert weighting filter is accepted as provided with any subsequent modifications, by whatever party maintain and updates the expert weighting filter 54 data, as representing any changing in the weighted relation over time (col. 11, lines 15-63). As a result, the processor is adapted to adjust weights (or override) of the weight averaging responsively to a difference between the corresponding ones (i.e., in response to user change of interest in particular item).

Regarding claims 21-23, the limitations of the method as claimed correspond to the limitations of the system as claimed in claims 18-20, and are analyzed as discussed with respect to the rejection of claims 18-20.

Regarding claim 24, the claimed limitations of the method is broadly met by Hosken's disclosure as follow:

“generating a first profile data by receiving through a user interface user preference in the form of expressed generalized preferences corresponding classes of resource” is broadly met by generating implicit profile data or explicit data (figures 2-3, col. 10, line 1 -col. 11, line 19);

“generating second profile data by receiving user preferences in the form of rating data corresponding to specific resource” is met by generating explicit data (col. 10, lines 1-49); and

“applying the first and second profile data to respective prediction engine to produce first and second prediction and second prediction results and combining the first and second results” is broadly met by applying the implicit profile data and explicit profile data to system processor to produce content result table and collaborative result table and combining the content result table and collaborative result tables (figures 2-3, col. 16, lines 1-44).

Regarding claim 25, Hosken further discloses combining the first and second profile data including weight averaging corresponding ones of the profile data (col. 16, lines 24-28).

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Regarding claim 26, Hosken further discloses combining results (result tables) includes selectively weight averaging corresponding ones of the predictions (col. 16, lines 24-28).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-8,15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosken (US 6,438,579) as applied to claims 1, 9 above, and further in view of Bergh (US 6,112,186).

Regarding claim 7, Hosken teaches a system as discussed in the rejection of claim 1. However, Hosken does not specifically disclose input vectors each include feature – value pairs.

Bergh teaches input vectors each include feature-value pairs (see col. 4, lines 15-32 and col. 19, line 25- col. 24, line 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hosken to use the

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teaching as taught as Bergh in order to improve efficiency in data recommendation system.

Regarding claim 8, Hosken teaches a system as discussed in the rejection of claim 1.

However, Hosken does not specifically disclose input vectors each include feature – value pairs and a rating value.

Bergh teaches input vectors each include feature-value pairs and a rating value (see col. 4, lines 15-32 and col. 19, line 25- col. 24, line 65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks to use the teaching as taught as Bergh in order to recommend product to user more accurate according to specific interest level of user.

Regarding claims 15-16, the limitations of method as claimed respectively correspond to the limitations of system as claimed in claims 7- 8, and are analyzed as discussed in the rejection of claims 7 and 8.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P. Huynh whose telephone number is 571-272-7295. The examiner can normally be reached on 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C. Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPH
December 21, 2005


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